cyclonic disturbance, is of wider conservation significance, and certainly worthy of more detailed study.

Acknowledgements

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Additions and corrections to the avifauna of Zaïre (3)

by M. Louette

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These comments are a follow up of 2 earlier parts (Louette 1987, 1988).

Platalea leucorodia

This species is not mentioned specifically for Zaïre by Brown *et al.* (1982), but Lippens & Wille (1976) say "se rencontre au Zaïre de temps en temps, mais très rarement"; in fact Lippens (1938) had observed a bird on 17 January and collected a specimen on 22 Apr 1936 at Vitshumbi (Lake Edward: 0°42′S, 29°25′E), the latter still in existence in Koninklijk Museum voor Midden-Afrika (KMMA). This appears to be the southern-most locality recorded for the species. There is also a second specimen,

collected at Titule (3°17′N, 25°32′E) on 8 Jan 1942 by Vrijdagh (see Schouteden 1963).

Streptopelia turtur
That this Palaearctic migrant was seen only once in Zaïre (at Avakubi) as mentioned by Lippens & Wille (1976) and mapped by Urban *et al.* (1986) is wrong. There are 3 specimens in KMMA, all immatures: from Keseki (2°07′S, 16°32′E), taken in 1931, from Boangi (1°53′S, 20°57′E), taken about 1953 and from Lulingi (9°20′S, 27°36′E) taken on 9 Oct 1963.

Tockus fasciatus and *T. alboterminatus*
These are undoubtedly 2 separate species although they are parapatric in southern Zaïre; there is however a specimen, sexed male, from Kabambare (Maniema: 4°40′S, 27°40′E), 25 Jul 1910, that I consider to be a hybrid between the 2 species. Dorsally it is closest to *fasciatus*, being blackish generally, but at the tip of the crest there appears some white, indicating probably the white patch present there in the other species. Ventrally it is intermediate in colour; whereas *fasciatus* has a black breast and a white belly, this specimen has these colours washed with brownish orange, but not to the extent as is usual in skins of *alboterminatus geloensis*, the race found in southern Zaïre. The white tips of the tail feathers are larger than in *alboterminatus* but smaller than in most *fasciatus*. Also the bill (though it is now more than 75 years after the date of collection) is quite orange in general colour, which is not typical of *fasciatus*. There is however a black line under the lower mandible, as in *fasciatus*. The specimen's measurements are (mm): wing-chord 261, tail 239, total culmen 84, within the range of both species.

Apalis goslingi
The atlas map in Hall & Moreau (1970) gives the impression there exists a gap between the recorded occurrences of this species in the west in Cameroon (and also in Gabon–Brosset & Erard 1986) and in southern and eastern Zaïre. However, there are 5 specimens in KMMA, from the Equateur region bridging the gap: Bolunga (0°24′S, 21°53′E); Imbele (0°56′S, 22°52′E); Elongo/Nkombi (0°18′S, 21°31′E); River Isojdjo (0°04′S, 18°18′E); Monieka (0°41′N, 19°57′E).

Ploceus superciliosus
I follow Moreau (1962) in using the name *superciliosus, contra* Mackworth-Praed & Grant (1973). This weaver has a brownish non-breeding dress with a uniformly pale (washed cinnamon) ventral side; dorsally, dark brown colour stretches in a broad band over the head, right to the bill (see Plate XI(10) in Benson *et al.* 1971). In breeding dress the throat becomes black, the breast generally yellowish; on the dorsal side some green is interspersed in the streaky brown. Sexual difference in breeding dress is apparent in the head colour only: in the female the same general pattern as in the eclipse dress is prevalent, but the pale cinnamon is replaced by yellow and the central crown band is now greenish-black; while the male assumes a yellowish frontal half of the crown, edged with

orange-brown towards the bill so that the dark band starts only on top of the head and continues towards the back. This sexual difference occurs in most of the range, but some authors have had problems recognising the annual and sexual differences (e.g. Dubois 1905, Lippens & Wille 1976, legend to Plate 82 in Mackworth-Praed & Grant 1973).

In the populations of southern Zaïre (Kasai and western Shaba, possibly also in Lower Zaïre, see Fig. 1), one phenotype only is found among the 28 specimens in KMMA in breeding dress, namely the male phenotype of the other populations; it seems unlikely that they are all males unless there was some reason for having collected only male specimens. I do not rely much upon the sex given on labels for the present study if no drawing of gonad size is given. I suspect that in this area on the contrary the male phenotype corresponds to both sexes. There are 2 other specimens, from Gandajika (Kasai), where the crown has the dark band, but as the throat and cheek black patches are not yet developed I assume this band still belongs to the eclipse plumage. Indeed, 2 other specimens, where the black throat and cheek patches are better developed, show an intermixture of yellow feathers in the crown band. Specimens from other regions show this latter process of moult towards the male phenotype as well.

A similar situation occurs in neighbouring countries. The Angola population is similarly described as monomorphic by Jackson (1938). Ripley & Heinrich (1966) mention 2 females and one male from there, but Rand *et al.* (1959), for Gabon and Congo, mention only the existence of "male" specimens, possibly because they were "sexed" on plumage characteristics only. I examined the Angola specimens collected by Heinrich (in Yale Peabody Museum and Smithsonian Institution collections) and found one from "Rio Kassai" and the other from "Lake Camumbo" duly sexed female after dissection, but both have the male phenotype with a yellow frontal region, proving my assumption for southern Zaïre. However, another female from north-central Angola, "25 km NW Nova Gaia" is in female phenotype with a black band right to the bill. This latter specimen, however, is the only female phenotype in skins of the whole population in this general area (specimens from Field Museum of Natural History have also been examined). The female recorded by Benson & Irwin (1964) from extreme northwestern Zambia is in non-breeding dress, as was apparently the specimen they mention from Ndala Tando, Angola. Male specimens (after dissection) from Angola have the male phenotype, as expected, as also is one from Djambala, Congo.

The situation in westernmost Zaïre is unclear: only 3 specimens in breeding dress are available, all in male dress. Somewhat more to the north, along the middle Zaïre river (Kunungu, ±2°S, 16°30'E) there are specimens of both the male and female phenotype and still others with the forehead and crown interspersed with some yellow feathers. This fits in the zoogeographical picture, because the Kunungu population is situated in the possible contact zone of monomorphic and dimorphic populations. These specimens however could as well be in the final stage of moult, whereafter they would acquire the complete male phenotype. Jackson (1938) even suspected that in East Africa male and female had the same

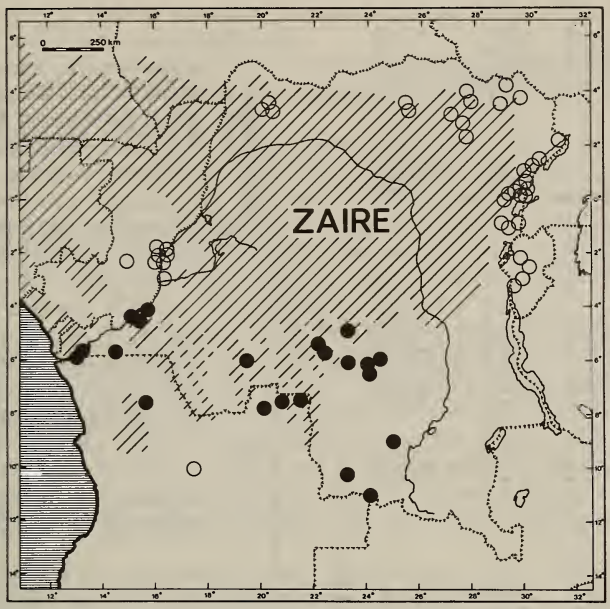

Figure 1. *Ploceus superciliosus*. Localities of specimens from Zaïre, Rwanda, Burundi, Zambia, Angola and Congo. The species occurs also in extreme northwestern Tanzania and widely in Uganda, Sudan and further west; also in Gabon. Open circles indicate the dimorphic populations, black circles the (supposedly) monomorphic population. Shading indicates equatorial rainforest block.

plumage (just as I consider it is now the case in southern Zaïre and northeastern Angola), but among specimens I have seen from East Africa, both phenotypes occur.

Fig. 1, based on all specimens examined and their localities (and those from Chapin 1954) illustrates the phenotype distribution in Zaïre and surrounding areas and it also corrects Hall & Moreau's (1970) map which shows too many records in the forested part of Zaïre, for which I am unable to trace the source in the literature. Later, Lippens & Wille (1976) mentioned *P. superciliosus* in Zaïre from Kwilu (±6°S, 19°E) and Dubois (1905) had mentioned a specimen from "Ruzizi-Kivu"(?), still in KMMA, but not included on the map. Fig. 1 shows clearly a circum-forest lowland distribution, the species not entering the equatorial forest belt as such and being also absent from the higher altitudes in eastern Zaïre. In neighbouring countries, it is widespread in Uganda, but in Tanzania is limited to the extreme northwest. The southern Zaïrean population is thus probably isolated from the East African birds. Along the middle Zaïre river however, as mentioned already, there is possibly a contact between northern and southern populations. It was shown for other species (see Louette & Prigogine 1982) that along this river there possibly existed a connecting path of non-forest vegetation. Also, since *P. superciliosus* is present in north-central Gabon (Brosset & Erard 1986) and in southern Cameroon (Louette 1981), regions not far from each

TABLE 1

Measurements in mm of *Ploceus superciliosus* populations (breeding dress specimens only).

Region	Phenotype	Wing-chord n	Wing-chord x̄	Wing-chord range	Tail n	Tail x̄	Tail range	Total culmen n	Total culmen x̄	Total culmen range
Zaïre: N and NE of the equatorial forest and NW Uganda	male	12	69.0	67.5–71.5		43.4	40.0–46.0	(11)	17.9	17.5–18.5
	female	12	66.8	63.0–71.0		41.4	38.5–46.5	(10)	17.2	16.0–18.0
Zaïre: S of the forest (Kasai + Shaba only)	male[1]	28	69.5	65.5–74.5	(27)	43.2	39.5–46.5	(27)	18.4	17.5–19.5
Zaïre: *idem* (middle Zaïre area)	male	11	67.7	64.0–69.5	(9)	41.2	40.0–44.0		17.9	17.5–18.5
	female	4	64.5	63.5–66.0		41.4	41.0–42.0		17.5	17.0–18.0
Angola	male[2]	6	66.4	65.5–67.5		42.0	38.5–45.0		18.1	17.5–18.5
	female	1		66.5			43.0			17.5
Ethiopia	male	1		69.0			43.5			17.5
	female	3	65.0	64.0–67.0		39.2	36.0–42.0		17.3	17.0–17.5
Burundi, Tanzania	male	3	67.5	65.0–69.0		40.8	40.5–41.0		17.8	17.5–18.5
	female	4	66.8	64.5–70.0		41.1	39.0–42.5		17.8	17.5–18.0

[1]Sex mentioned on label: 13 male, 7 female, 8 unsexed. [2]Sex mentioned on label: 5 male, 2 female.

TABLE 2

Measurements in mm of *Spermophaga haematina* subspecies from West Africa and regions of Zaïre.

Subsp.	Region		Wing-chord n	Wing-chord x̄	Wing-chord range	Tail x̄	Tail range	Total culmen x̄	Total culmen range
haematina	Liberia, Guinea	male	6	67.8	65.5–69.0	53.2	50.0–56.5	18.6	18.0–19.0
		female	6	66.3	63.5–68.0	51.7	50.0–54.0	17.3	16.5–18.0
pustulata	Lower Zaïre	male	10	69.7	68.0–71.5	53.4	51.5–56.0	17.8	17.5–18.0
		female	10	70.0	68.0–74.0	53.4	50.0–57.0	17.0	16.0–18.5
	Kasai	male	5	69.9	68.5–71.0	52.6	51.5–54.5	17.5	17.0–18.0
		female	5	70.1	69.5–71.0	52.2	48.5–58.0	16.5	16.0–17.0
ruficapilla	Kasai	male	5	70.1	66.0–74.5	57.5	55.5–59.5	18.1	17.5–18.5
		female	5	68.9	68.0–70.0	53.8	52.0–54.0	17.0	16.5–17.5
	Uele	male	10	71.6	68.0–75.0	55.1	53.5–59.0	18.7	18.0–19.0
		female	10	70.7	68.5–75.0	53.7	50.0–57.5	17.5	16.0–18.5
	Kivu	male	10	71.8	68.5–74.5	55.0	53.5–57.5	18.1	17.5–19.5
		female	10	70.6	69.5–72.5	53.5	48.5–56.0	17.9	16.5–19.5
Intermediates *pustulata*/ *ruficapilla*	Kasai, Kivu, Uele	male	4		69.0,69.0,70.0,73.5,		54.5,52.5,52.5,58.5,		18.0,18.5,18.0,18.5,
		female	3		66.5,67.0,72.5		52.5,51.0,55.0		18.0,17.0,17.5

other, there is also a possible contact in this latter region between southern and northern populations.

The measurements show the monomorphic populations of Zaïre and Angola to be only slightly larger, especially in bill length (Table 1), not justifying taxonomic distinction.

The breeding dress is worn in westernmost Zaïre from September to May; in south-central Zaïre (and northeastern Angola) October–June (June, one specimen); in northern Zaïre (and Cameroon) May–September; in eastern Zaïre (and Uganda) June–November (and in Ethiopia at least in May and June). However, surprisingly, the birds from Rwanda, Burundi and NW Tanzania (very close geographically to the ones in eastern Zaïre and Uganda) wear the breeding dress from January to April. The fact that southern and northern birds are breeding in opposite periods of the year would at first sight be helpful in maintaining reproductive isolation; but there is in fact no plumage difference nor measurement difference between birds from Zaïre and Uganda on the one hand and Rwanda, Burundi and Tanzania on the other (Table 1).

Differences in breeding season and in female plumage are not useful in separating given populations at the subspecific level, nor are there constant differences in eclipse plumage as supposed by Benson & Irwin (1964).

The species was described from West Africa, but 2 subspecies have been named: *pachyrhynchus* Reichenow, Semliki Valley, a race not now recognised; and *omoensis* Neumann, Omo Valley, the holotype of which is said to be larger, but the specimen cannot be found now (G. Mauersberger). I examined 4 specimens from Ethiopia (from the Smithsonian Institution collections, (see Table 1) and they do not differ from other populations; so the name *omoensis* is best considered as a synonym of *superciliosus*.

In view of all the above it seems best to consider *P. superciliosus* to be taxonomically a monotypic species. In general, females appear to be only slightly smaller than males and both sexes assume identical or near-identical breeding and eclipse dress. These facts demonstrate the peculiar morphology of this weaver. Therefore, the use of the generic name *Pachyphantes* or *Ploceella* may well be warranted (see Chapin 1954, Moreau 1960).

Spermophaga haematina (including *ruficapilla)*

The reasons for treating *Spermophaga haematina* and *ruficapilla* as conspecific are given hereafter. Chapin (1954: 482) considered them as 2 different species and he was puzzled by their relationship as he had "seen no intergradation between them, yet their ranges appear to be complementary" and he added "their haunts and behaviour are very similar and specimens should be collected between Yambuya and Banalia or between Luebo and Luluabourg, to determine the exact conditions where the two forms meet". Their ranges are indeed parapatric in Zaïre (see Fig. 2) but I have found several intermediate specimens from 3 contact areas (Kasai, Kivu, Uele), most of them collected after Chapin's day.

In fact, the colour pattern in this species changes in one continuous direction over its range which covers the whole equatorial forest block in

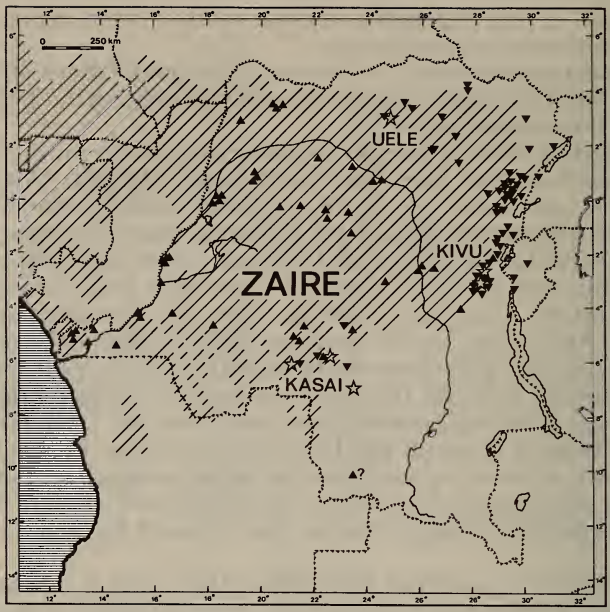

Figure 2. Localities of specimens from Zaïre, Rwanda, Burundi (specimens in KMMA).
▲ *Spermophaga haematina pustulata* (occurs also further west).
▼ *Spermophaga haematina ruficapilla* (occurs also in northwestern Angola).
☆ intermediates.
The specimen doubtfully from Kasaji is marked "?". Shading indicates equatorial rainforest block.

Africa. From west of east, red progressively takes the place of certain black parts in the plumage. The most western population (*S. h. haematina*, in Upper Guinea) is black all around the head and has black upper tail coverts in the male. Moving east there are the races named *togoensis, immaculosa* and *pustulata*, in which red appears on the upper tail coverts of both sexes and eventually on the cheeks, the whole side of the head, in the region in front of the eyes and finally in a streak above the eye, these birds penetrating far to the east in Zaïre. From the geographical distribution, it seems as if the *pustulata* population is pushing *ruficapilla* towards the east. The population in northwestern Angola (not on the map), eastern Zaïre and neighbouring areas further east (*ruficapilla*), up to now considered as specifically distinct, has the head red all around (most intensively in the male). The specimens marked as intermediates on the map have the frontal part of the crown red, the distal part being black. They are found in areas wherefrom specimens in the contact zone between *pustulata* and *ruficapilla* are available. But 'pure' phenotypes exist in these regions as well. Head colour is the one apparent character that enables one to differentiate them.

Cunningham-van Someren & Schifter (1981) described the race *kilgoris* from 5 specimens taken at the locality with that name (see their map), as being generally duller in colour than other Kenya specimens of

ruficapilla. However, I find specimens with characters exactly as those they described for *kilgoris* among the *ruficapilla* from Kivu, Zaïre. The intensity of back colouration and that of the background of the belly colouration is rather variable, possibly related to age; the juvenile plumage in general is also variable. Therefore I do not think that *kilgoris* is an acceptable race. The race *cana*, living in a restricted area in Tanzania, is more greyish, not jet-black in general colour; also, the red does only cover the frontal part of the crown, about to the same extent as in the intermediates *pustulata*/*ruficapilla*.

In the KMMA collection, there is a female specimen, phenotypically *h. pustulata*, i.e. with restricted red on the head, said to be collected at Kasaji (in Shaba–10°21'S, 23°29'E), which is out of the normal *pustulata* range. This specimen was apparently used for Hall & Moreau's (1970) map. However, its exact provenance is not certain because under its number there is also a (still existing) *Pirenestes ostrinus* skin registered in the catalogue and both bear the same collectors data and number. Possibly the *Spermophaga* specimen was wrongly labelled.

I measured specimens from West Africa (*haematina*) and from Zaïre (*pustulata*, intermediates and *ruficapilla*–see Table 2). It appears that wing and tail length increase slightly from west to east, a phenomenon not uncommon in Afrotropical species. It also appears from the specimens examined that the western populations of *haematina* may have a narrower bill than either *pustulata* or *ruficapilla*, but in general it may be said that all these populations are very close morphologically. Because no detailed field studies in the contact areas are likely in the near future and in view of the close morphology and clinal colour differences and the existence of intermediate specimens, I advocate considering all taxa as belonging in one species only: *Spermophaga haematina*. This species is sympatric in large areas of Zaïre with *S. poliogenys*.

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A review of the Least Nighthawk *Chordeiles pusillus*

by Robert W. Dickerman

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The Least Nighthawk *Chordeiles pusillus*, is poorly represented in ornithological collections in North America, except for the large type series of the subspecies *esmeraldae*. References in the literature to the species are mostly limited to the brief original descriptions of the several subspecies. While identifying a recently collected specimen from San Carlos de Rio Negro in southwestern Venezuela, I examined the specimens in the American Museum of Natural History (AMNH), and sought additional material from other collections. The following is a brief review of geographic variation in the species.

Six subspecies of *Chordeiles pusillus* are recognized, including 2 described since Peters (1945) and 2 newly described here. The subspecies are here arranged geographically from north to south (Fig. 1). Because of the small number of specimens available and the small difference in size between the sexes, measurements of males and females were combined for subspecies represented by fewer than 9 specimens. Capitalized colour names with numbers indicate direct comparison with Smithe's "Naturalists' Color Guide" (1975, 1981).